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FACT SHEET

Classes of Ecosystems

Introduction

Eglin Air Force Base is the largest air force base in the free world, including 724 square miles of land area and about 130,000 square miles of controlled airspace overlying land and water. In this setting, Eglin conducts its primary mission of full-service air armament development through weapons system research, development, testing and evaluation; training; space operations; and base and range support. While fulfilling its mission, Eglin also manages its natural resources, acting as a steward to protect plants and animals for future generations.

Eglin has a long history of activities that have used the natural resources on the base, especially its timber resources. Many of these activities occurred before the property was turned over to the U. S. War Department in 1940. While these activities have affected particular sites, much of Eglin remains relatively untouched. Since receiving control of the property, Eglin has cleared some lands necessary for defense missions, while reforesting other areas. Since 1978, the primary focus has been to reestablish the historically dominant longleaf pine to areas where it had once been found. Eglin's present resource management goal is the continued protection, maintenance, and enhancement of native plant and animal species communities. To meet this goal, Eglin has set guidelines for forestry, fire and pest management, recreation, wildlife, and threatened and endangered species.

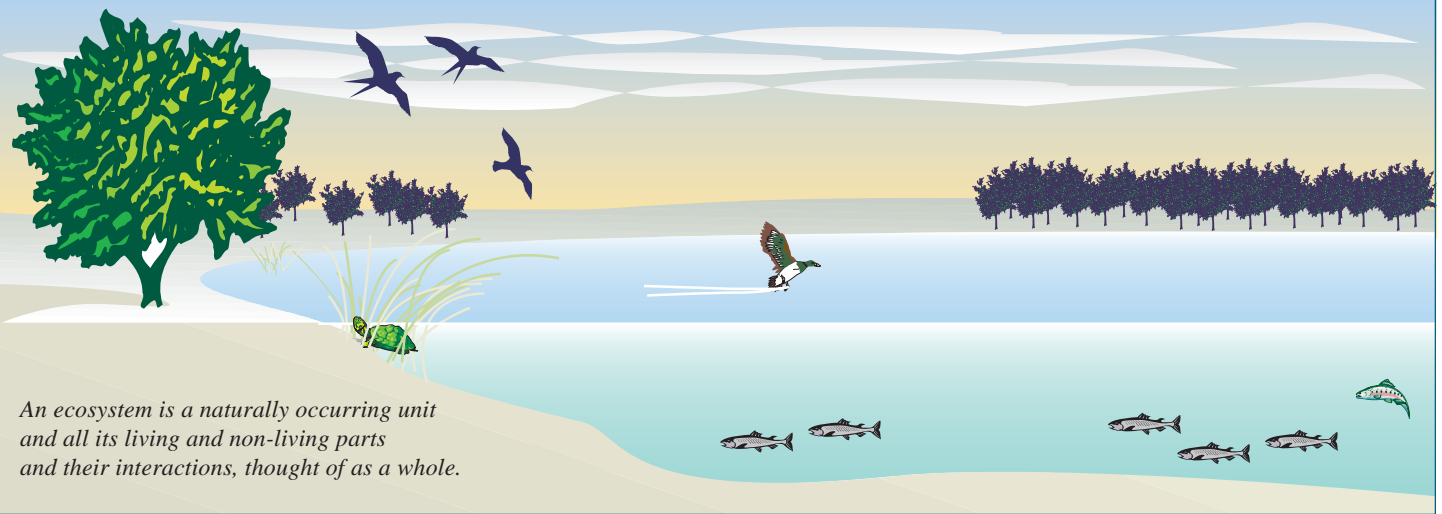
Emphasis is on managing *ecosystems* rather than individual species of plants or animals. An ecosystem is any naturally occurring unit and all its individual living and non-living parts — plants, animals, air, water, soil, temperature and energy — and their interactions, thought of as a whole. An ecosystem can be a very small unit, such as a decaying log and its inhabitants. A larger, more complex ecosystem includes all living and non-living elements that form a pond or a pine forest. By managing ecosystems, Eglin can best preserve the complex, natural relationships that benefit the entire spectrum of species.

Florida Natural Areas Inventory

Eglin works cooperatively with other federal agencies, the State of Florida, and interested private organizations. One of these private organizations, the Nature Conservancy, is a national non-profit organization dedicated to the conservation of plants, animals, and intact ecosystems. The Florida Natural Areas Inventory (FNAI), part of the Nature Conservancy in Florida, receives funds from the U.S. Department of Defense to inventory scientifically significant biological assets on Eglin as outlined in the *Natural Resources Management Plan*.

Ecological Associations

Because Eglin is so large and includes areas that differ from each other, a single management scheme is not feasible for all the areas on base. FNAI scientists began by



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studying the plants, animals, and geophysical characteristics of the areas on the base. Then, based on these studies, FNAI divided areas on base (except landscaped and urban areas) into seven ecosystem types or associations:

- Sandhills
- Sand Pine
- Flatwoods
- Swamp
- Salt Marsh
- Open Grassland/Shrubland
- Barrier Island

For each ecosystem, FNAI determined such things as the topography, types of soils, types of plants (including rare plants) and plant communities, sources of water, water quality and effects of fire. The information gained is used to tailor management goals and strategies for each ecosystem.

Classification of Ecological Condition

In addition to identifying the seven different ecosystems, FNAI also divided the vegetative areas on Eglin into four classes or tiers. The classes are based on (1) the perceived natural state of the existing vegetative community, (2) the potential for restoration, and (3) the level of effort that would be required to restore the natural state. The four classes of ecological condition are described as follows:

Type I Vegetative communities that are in their natural, undisturbed state or closely approximate it. The management goal is to maintain the community.

Type II Vegetative communities that still retain a good representation of species typical of the undisturbed state but which have been exposed

to moderate disturbance. These may be restored with careful management. The management goal is to restore or maintain the community.

Type III Vegetative communities that have experienced severe disturbance and no longer contain a good representation of native species typical of the undisturbed state. Restoration of these communities may not be feasible. The management goal may be to restore, maintain or use the land for intensive natural resource purposes, such as tree farming.

Type IV Portions of Eglin that have a designated land use and function for base activities, such as test areas, developed areas, sewage disposal areas, roads, power line rights-of-way, and other uses. The management goal for these areas is determined by the nature of their use.

A major goal of classification was to produce a map of Eglin lands showing the classes of ecological condition. This map was completed by interpreting aerial photographs and incorporating “ground-truth” data, collected during field site visits, about the natural community types and conditions. The tier classification was applied to the natural communities that are currently of greatest management interest at Eglin. Classifications enable Eglin to plan effectively for long-term management and to prioritize restoration activities.



Type I – Patterson Natural Area



Type II – Sandhills



Type III – Sandhills



Type IV – Test Area

This fact sheet is one in a series designed to inform the public about ecosystem and resource management activities at Eglin Air Force Base. For more information, contact Environmental Public Affairs Coordinator, AFDTC/PAV, (904) 882-4436, Ext. 333. This fact sheet is also available on the World Wide Web via the Eglin Homepage at <http://www.eglin.af.mil>

